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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/021,860	12/13/2001	Adam Cohen	364106/0286	5195

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EXAMINER	
BHAT, ADITYA S	

ART UNIT	PAPER NUMBER
2863	

DATE MAILED: 07/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/021,860	COHEN ET AL.	
	Examiner	Art Unit	
	Aditya S Bhat	2863	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 March 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *13 December 2001* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

The drawings are objected to because the drawings appear to be informal. The drawings should not be handwritten. Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Alvesteffer et al. (USPN 6,125,695)

With regards to claim 1, Alvesteffer et al. (USPN 6,125,695) teaches a differential pressure sensor comprising:

a fluid channeling device having a fluid channel defined there through and a fluid flow detector located in said fluid channel (See Figure 1);

a circuit coupled to said fluid flow detector for detecting a change in fluid flow through said fluid channel (See figure 6); and

memory having stored therein a characteristic of said fluid channeling device, said characteristic comprising at least one fluid channel calibration constant; and (See figure 10)

a microcontroller couple coupled to said fluid flow detector and said memory, said microcontroller being configured to determine a differential pressure vale based on said level and on said characteristic

With regards to claim 2, Alvesteffer et al. (USPN 6,125,695) teaches a first thermistor provided at a first location in said fluid channel; and a second thermistor provided at a second location in said fluid channel. (Col.2, lines 3-5)

With regards to claim 3, Alvesteffer et al. (USPN 6,125,695) teaches a fluid flows through said fluid channel in a. fluid flow direction, and wherein said second location is downstream from said first location in the fluid flow direction.(See figure 7)

With regards to claim 4, Alvesteffer et al. (USPN 6,125,695) teaches a fluid channeling device comprises:

an input hose; (see figure 7)

an output hose; (see figure 7)and

a fluid container having an input aperture to which said input hose is coupled and an output aperture to which said output hose is coupled, and wherein said characteristic of said fluid channeling device stored in said memory comprises calibration data for said input hose and said output hose.(See figure 6)

With regards to claim 5, Alvesteffer et al. (USPN 6,125,695) teaches a characteristic of said fluid channel device comprises a first constant K1 and a second constant K2. (Col. 6, lines 40-42)

With regards to claim 6, Alvesteffer et al. (USPN 6,125,695) teaches a wheatstone bridge circuit having four resistors, one: of which is said second thermistor; and a voltage divider circuit having two resistors, one of which is said first thermistor. (see figure 5)

With regards to claim 7, Alvesteffer et al. (USPN 6,125,695) teaches a second thermistor is operated in constant temperature mode. (Col.8, lines 19-21)

With regards to claim 8, Alvesteffer et al. (USPN 6,125,695) teaches a circuit further comprises an operational amplifier electrically coupled to said wheatstone bridge circuit to maintain said wheatstone bridge circuit in a balanced condition. (see figure 3)

Claims 9-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Fauque et al. (USPN 6,220,080).

With regards to claim 9, Fauque et al. (USPN 6,220,080) teaches a method of calibrating a differential pressure sensor comprising the steps of:
(a) providing a calibration system having an enclosure with a pressure chamber and a controller for controlling a pressure with the pressure chamber; (Col.1, lines 25-45)
(b) coupling a pressure sensor to be calibrated to the calibration system and controller; said pressure sensor comprising a fluid channeling device that comprises an input hose and an output hose; (44 &50; See figure 1)
(c) setting a pressure within the pressure chamber;((Col.1, lines 25-45)
(d) recording an output signal of the pressure sensor to be calibrated indicative of its response to the pressure set within the pressure chamber in step (c); (Col.6, lines 10-13)
(e) calculating a constant for the pressure sensor to be calibrated based on the output signal recorded in step (d); and (Col. 6, lines 3-19)
(f) writing the constant in a memory of the pressure sensor to be calibrated, wherein a characteristic of said fluid channeling device stored in said memory comprises calibration data for said input hose and said output hose (Col.5, line 63)

With regards to claim 10, Fauque et al. (USPN 6,220,080) teaches the step of repeating steps (c) through (e) for a predetermined number of iterations.

Claims 11-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Nishimura et al. (USPN 4,264,961).

With regards to claim 11, Nishimura et al. (USPN 4,264,961) teaches a system for controlling air flow in an enclosure having a chamber defined therein, said system comprising:
a supply air system coupled to the chamber for providing air flow into the chamber; (See figure 1) and
a first differential pressure sensor (20;Col.8, line 20) coupled to sail supply air system and comprising: an air channeling device having a air channel defined there through and a air flow detector located in said air channel; (Col. 8, lines11-26)
a circuit coupled to said air flow detector for detecting a change in air flow through said air channel; (See figure 5) and

memory having stored therein a characteristic of said air channeling device; (207 &209 figure 2)
a first differential pressure sensor controlling said supply air system to maintain a predetermined airflow in the enclosure. (Col. 8, lines11-26)

With regards to claim 12, Nishimura et al. (USPN 4,264,961) teaches a air flow detector comprising: a first thermistor provided at a first location in said air channel; and a second thermistor provided at a second location in said air channel air flows through said air channel in an air flow direction, and wherein said second location is downstream from said first location in the air flow direction. (Col. 9, lines 35-55)

With regards to claim 14, Nishimura et al. (USPN 4,264,961) teaches an air channeling device comprises: an input hose; an output hose; and a container having an input aperture to which said input hose is coupled and an output aperture to which said output hose is coupled, and wherein said characteristic of said air channeling device stored in said memory comprises calibration data for said input hose and said output hose.(see figure 5)

With regards to claim 15, Nishimura et al. (USPN 4,264,961) teaches a characteristic of said air channeling device comprises a first constant K, and a second constant KZ. (Col.5, lines 5-15)

With regards to claim 16, Nishimura et al. (USPN 4,264,961) teaches a wheatstone bridge circuit having four resistors, one of which is said second thermistor; and a voltage divider circuit having two resistors, one of which is said first thermistor.(See figure 10)

With regards to claim 17, Nishimura et al. (USPN 4,264,961) teaches a second thermistor is operated in constant temperature mode.

With regards to claim 18, Nishimura et al. (USPN 4,264,961) teaches the circuit further comprises an operational amplifier electrically coupled to said wheatstone bridge circuit to maintain said wheatstone bridge circuit in a balanced condition.(See figure 10)

With regards to claim 19, Nishimura et al. (USPN 4,264,961) teaches an exhaust air system coupled to the chamber for providing airflow out of the chamber. (See figure 1)

With regards to claim 20, Nishimura et al. (USPN 4,264,961) teaches a second differential pressure sensor coupled to said exhaust air system and comprising: an air channeling device having an air channel defined there through and a air flow detector located in said air channel; a circuit coupled to said air flow detector for detecting a change in air flow through said air channel; and memory having stored therein a characteristic of said air channeling device; said second differential pressure sensor controlling said exhaust air system to maintain a predetermined air flow in the enclosure.

With regards to claim 21, Nishimura et al. (USPN 4,264,961) teaches a first thermistor provided at a first location in said air channel; and a second thermistor provided at a second location in said air channel.

With regards to claim 22, Nishimura et al. (USPN 4,264,961) teaches a system where air flows through said air channel in an air flow direction, and wherein said second location is downstream from said first location in the air flow direction.

With regards to claim 23, Nishimura et al. (USPN 4,264,961) teaches an input hose; an output hose; and a container having an input aperture to which said input hose is coupled and an output aperture to which said output hose is coupled, and wherein said characteristic of said air channeling device stored in said memory comprises calibration data for said input hose and said output hose. (See figure 7)

With regards to claim 24, Nishimura et al. (USPN 4,264,961) teaches air-channeling device comprises a first constant K1 and a second constant Kz. (Col. 5, lines 1-15)

With regards to claim 25, Nishimura et al. (USPN 4,264,961) teaches a wheatstone bridge circuit having four resistors, one of which is said second thermistor; and a voltage divider circuit having two resistors, one of which is said first thermistor. (see figure 10)

With regards to claim 26, Nishimura et al. (USPN 4,264,961) teaches second thermistor is operated in constant temperature mode. (see figure 10)

With regards to claim 27, Nishimura et al. (USPN 4,264,961) teaches the circuit further comprises an operational amplifier electrically coupled to said wheatstone bridge circuit to maintain said wheatstone bridge circuit in a balanced condition. (See figure 10)

Response to Amendment

During patent examination, the pending claims must be "given the broadest reasonable interpretation consistent with the specification." Applicant always has the opportunity to amend the claims during prosecution, and broad interpretation by the examiner reduces the possibility that the claim, once issued, will be interpreted more broadly than is justified. In re Prater, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-51 (CCPA 1969).

While the meaning of claims of issued patents are interpreted in light of the specification, prosecution history, prior art and other claims, this is not the mode of claim interpretation to be applied during examination. During examination, the claims must be interpreted as broadly as their terms reasonably allowed. This

means that the words of the claim must be given their plain meaning unless applicant has provided a clear definition in the specification. In re Zletz, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989).

In this instance applicant argues that Alvesteffer does not teach a differential pressure sensor, a constant related to the characteristics of the fluid channeling device and figure 7 does not teach a input and output hose.

In response to applicant's argument, that the prior art of record does not teach a differential pressure sensor, this recitation has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See In re Hirao, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and Kropa v. Robie, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

Referring to the argument that the constant in the pending application is not taught by the prior art of record. Alvesteffer teaches the temperature difference to be held at a constant (Col. 6, lines 28-29)

Referring to the argument that figure 7 is insufficient to teach the input output hoses as claimed in the pending application. Figure 7 shows an input/output for a fluid channeling device and the input/output shown in figure 7 appear to perform the same functions as the input/output hoses in the pending

application therefore they are considered functionally equivalent, this limitation is not considered patentable over the prior art

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Craigen et al. (USPN 4,719,806) teaches a fluid flow monitor probe, Bohrer (USPN 4,566,320) teaches a fluid flow sensing means with ambient temperature compensation, Kofed et al (USPN 5,535,633) teaches a differential pressure sensor for respiratory monitoring, Drexel (USPN 5,311,762) teaches a flow sensor calibration, Nishimura et al (USPN 4,562,731) teaches an air flow meter, Carr et (USPN 5,819,721) al. teaches a flow control

system, and Yamagishi et al. (USPN 6,588,268) teaches a flow rate sensor, temperature sensor and flow rate detecting apparatus.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aditya S Bhat whose telephone number is 571-272-2270. The examiner can normally be reached on M-F 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on 571-272-2269. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Aditya Bhat
July 14, 2004

John Barlow
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